IN THE CLAIMS:

1. (Currently Amended) A process for the wet fractionation of oil seed press cake and/or meal, ~~wherein~~ comprising dispersing oil seed press cake or meal ~~is dispersed~~ in water and ~~subjected~~ subjecting it to a combined treatment of [[wt]] wet milling, ~~enzymes and heat,~~ enzymatic treatment by using one or a combination of the following enzymes: beta-glucanase, xylanase, hemicellulase, arabinase and pectinase and heat, followed by a sequential fractionation at an elevated temperature using centrifugal forces and size exclusion (ultrafiltration) so as to yield one or more fibrous-rich fractions, at least three different protein-rich fractions, optionally an oil-rich fraction, a sugar-rich fraction and a phytate-rich fraction, followed by a final step consisting of drying or partial evaporation of the above-said fractions.

2. (Previously Presented) A process according to claim 1, wherein oil seed press cake or meal is the residual fibrous-protein fraction obtained from conventional oil extraction processes of oil seeds of the type Soya, rapeseed, cottonseed, sunflower, linseed and flax seed.

3. (Previously Presented) A process according to claim 1, wherein the combination of wet milling, enzymatic and heat treatment is carried out to achieve a high efficiency in the subsequent fractionation of the main components of oilseed press-cake and meal, i.e. fibre, protein, oil, sugars and phytate, and that an extraction rate of both protein, residual fat and phytate of at least 70% from the original material is achieved.

4. (Cancelled)

5. (Previously Presented) A process according to claim 1, wherein an enzyme inactivation step is carried out prior to the fractionation step or drying step.

6. (Previously Presented) A protein fraction obtained in accordance with the process of claim 1, wherein the said fraction is provided in a dry form with at least 88% dry matter, and it is comprised of one or more protein fractions produced in the said process, and it contains 30 to 95% protein, and 1 to 60% oil.

7. (Currently Amended) A protein fraction obtained in accordance with the process of claim 1, wherein the said fraction is provided in a dry form with at least 88% dry matter, and it is comprised of one or more protein fractions produced in the said process, and it contains 30 to 95% protein, 1 to 60% oil, and it contains active enzymes of the type used in the process.

8. (Withdrawn) An oil fraction obtained in accordance with the process of claim 1, wherein the said fraction is provided as an emulsified oil, and it is comprised of one or two oil fractions produced it the said process, and it contains at least 60% fat, and less than 30% protein.

9. (Withdrawn) An oil fraction obtained in accordance with the process of claim 1, wherein the said fraction is provided as an emulsified oil, and it is comprised of one or two oil fractions produced in the said process, and it contains at least 60% fat, and less than 30% protein, and it contains active enzymes of the type used in the process.

10. (Withdrawn) A fibre fraction obtained in accordance with the process of claim 1, wherein the said fraction provided in a dry form with at least 88% dry matter, and it is comprised of at least 50% fibre, 15% protein and 10% fat.

11. (Withdrawn) A fibre fraction obtained in accordance with the process of claim 1, wherein the said fraction provided in a dry form with at least 88% dry matter, and it is comprised of at

least 50% fibre, 15% protein and 10$ fat, and it contains active enzymes of the type used in the process.

12. (Withdrawn) A sugar fraction obtained in accordance with the process of claim 1, wherein the said fraction provided in a syrup form with at least 75% dry matter, and it consists of at least 50% neural and acidic sugars.

13. (Withdrawn) A sugar fraction obtained in accordance with the process of claim 1, wherein the said fraction provided in a syrup form with at least 75% dry matter, and it consists of at least 50% neutral and acidic sugars, and it contains active enzymes of the type used in the process.

14. (Withdrawn) A phytate fraction obtained in accordance with the process of claim 1, wherein the said fraction provided in a dry form and contains 30 to 80% phytate.

15. (Withdrawn) The use of a protein fraction, as described in claim 6, in food or feed applications as a protein ingredient or functional protein to replace other protein products from vegetable, animal and microbial sources.

16. (Withdrawn) The use of a protein fraction, as described in claim 7, in feed applications as a protein ingredient to replace other protein products from vegetable, animal and microbial sources, with active enzymes used in the process for enhanced nutritive value.

17. (Withdrawn) The use of an oil fraction, as described in claim 8, in food or feed applications as a fat substitute or emulsifier to replace other fat products from vegetable and animal sources.

18. (Withdrawn) The use of an oil fraction, as described in claim 9, in feed applications as a fat substitute or emulsifier to replace other fat products from vegetable and animal sources, with active enzymes used in the process for enhanced nutritive value.

19. (Withdrawn) The use of a fibre fraction, as described in claim 10, in feed applications as a balanced feed ingredient.

20. (Withdrawn) The use of a fibre fraction, as described in claim 11, in feed applications as a balanced feed ingredient, with active enzymes used in the process for enhanced nutritive value.

21. (Withdrawn) The use of a syrup fraction, as described in claim 12, in feed applications as an energy source or a compound feed binder, or as a media for microbial fermentation.

22. (Withdrawn) The use of a syrup fraction, as described in claim 13, in feed applications as an energy source or compound feed binder, with active enzymes used in the process for enhanced nutritive value.

23. (Withdrawn) The use of a phytate fraction, as described in claim 14, in food and feed applications as an anti-oxidant and taste enrichment agent and in nutraceutical / cosmoceutical / pharmaceutical applications as a cancer-preventing, urinary calculi-preventing and bacterial tooth plaque-preventing agent.

24. (Withdrawn) The use of a phytate fraction, as described in claim 14, in nutraceutical / cosmoceutical / pharmaceutical applications as a cancer-preventing.

25. (Withdrawn) The use of a phytate fraction, as described in claim 14, in nutraceutical / cosmoceutical/ pharmaceutical applications as a urinary calcull-preventing agent.

26. (Withdrawn) The use of a phytate fraction, as described in claim 14, in nutraceutical / cosmoceutical / pharmaceutical applications as a bacterial tooth plaque-preventing agent.

27. (Withdrawn) A set up for carrying out the process according to claim 1, wherein it comprises a hydrolysis and heat treatment vessel, a wet mill, a heat exchanger for enzymatic inactivation, mixing tanks, decanters, dseparators an ultra-filter, and evaporator, and dryers.

28. (New) A process according to claim 1, wherein the enzymatic treatment is combined with wet milling at temperatures from 20 to 90 °C, more preferably from 30 to 50 °C.

29. (New) A process according to claim 1, wherein the hydrolysate after the wet milling is heated to 50 to 95 °C and sequentially centrifuged and filtered through an ultrafilter fitted with a 10 kD membrane.